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Course Code – CS255

Course Name – Operating Systems Lab

Lab - 01

Date – January 24, 2022

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## **System Call Functions**

fork()

- fork() is used to create a new process and it is called child process. It runs concurrently with the process that makes the fork() call.

execl()

- exec() is used to executing a new program, exec() can be called by any process by any time and if the program is currently running then first it will be terminated then new program will be started executing.

wait()

- wait() system call suspends execution of the current process until one of its children terminates.

exit()

- exit() is called to terminate a programs execution.

getuid()

- getuid stands for get user identity. getuid() return the real user id of the current process.

geteuid()

- geteuid() system call will return the effective user id of the current process.

getgid()

- Stands for get group identity. getgid() returns the real group id of the current process.

getegid()

- getegid() will return the effective group id of the current process.

getpid()

- getpid refers to get the process identification. getpid() function shall return the process id of the current process. For getpid, there is no return value to indicate an error.

getppid()

- getppid() returns the process id of the parent of the current process.

signal()

- It installs a new signal handler for the signal with number signum. signal() function returns the previous value of the signal handler or SIG\_ERR on error.

kill()

- kill() is used to terminate process manually. kill command sends a signal to a process which terminates the process.

alarm()

- alarm() is used to set an alarm clock for the delivery of a signal. alarm() will return zero if there was no previously scheduled alarm.

chdir()

- This command is used to change the current working directory.

creat()

- creat is used to create a new file or rewrite an existing one.

open()

- open() system call will simply open a file. If we want to perform operations such as read and write on it then we will have to execute different system call based on our operation.

close()

- As name refers, close system call is used to close an opened file.

read()

- This system call is used to open a file in reading mode. Also, it will not allow us to edit the file.

write()

- write() system call is used to open a file in writing mode. That's means if we open a file using write(), then we will be able to edit that file.

lseek()

- lseek() is used to change the location of the read/write pointer of a file descriptor.

dup()

- It creates a copy of a file descriptor.

link()

- create a new link to an existing file.

unlink()

- delete a name from the file system.

access()

- access is used to check if the calling program has access to a specified file. It can also be used to check the existence of a file.

chmod()

- It is used to change the access permission of file system objects.

chown()

- chown() stands for change ownership of a file. It is used to change the owner and group of the file.

umask()

- umask() sets the calling process's file mode creation to mask and 0777.

ioctl()

- Stands for input/output control. This function manipulates the underlying device parameters of special files.